

Claims

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1. Method for producing sounds that depend upon the operation of an internal combustion engine in the interior space of a motor vehicle, characterized in that

5 fluctuations in pressure in the fresh air stream supplied to said engine are detected and converted to signals that are made audible via at least one speaker arranged in said interior space.

10 2. Apparatus for producing sounds that depend upon the operation of a combustion engine in the interior space of a motor vehicle, characterized by

 a pressure sensor (20) that detects fluctuations in pressure of a fresh air stream in the engine (6);

 an amplification device (30, 32) for amplifying the output signals of the pressure sensor; and

15 at least one speaker (34) connected to said amplifier and arranged in said interior space of said vehicle for reproducing the amplified output signals.

 3. Apparatus in accordance with claim 2, characterized in that said pressure sensor (20) is a differential pressure sensor.

20 4. Apparatus in accordance with claim 2 or 3, characterized in that said pressure sensor (30) is a pressure sensor that is sensitive for a broad frequency range.

 5. Apparatus in accordance with claim 4, characterized in that the

range of sensitivity of the pressure sensor extends from 1 Hz to 10 kHz.

5 6. Apparatus in accordance with any of claims 2 through 5, characterized in that the amplification device (32, 33, 48) contains a filter device (32) for frequency-selective processing of the output signals of said pressure sensor (20).

7. Apparatus in accordance with claim 6, characterized in that said filter device (32) dampens frequencies over 300 Hz.

8. Apparatus in accordance with claim 6 or 7, characterized in that said filter device (32) dampens frequencies below 30 Hz.

10 9. Apparatus in accordance with any of claims 2 through 8, characterized in that a modulation device (36, 37) is provided with which the properties of said amplification device (32, 33, 48) can be changed.

15 10. Apparatus in accordance with claim 9, characterized in that said modulation device (36, 37) contains a component (37) for triggering an active module (48) in said amplification device (32, 33, 48).

11. Apparatus in accordance with any of claims 2 through 10, characterized in that said pressure sensor (20) is arranged at a position in a multi-cylinder internal combustion engine at which it detects the fresh air stream forwarded to all cylinders.

20 12. Apparatus in accordance with any of claims 2 through 11, characterized in that an intake manifold (14) of the internal combustion engine (6) has a hole (22) and said pressure sensor (20) is affixed to said intake manifold such that an input window (24) of the pressure sensor is

adjacent to the hole.